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OYEN, WIGGS, GREEN & MUTALA LLP			CULLER, JILL E	
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VANCOUVER, BC V6B 1G1			2854	
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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/671,682

Applicant(s)

SALVESTRO, ALDO

Examiner

Jill E. Culler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) 61-69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-24, 27-36, 39-51 and 54-60 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 25, 26, 37, 38, 52 and 53 is/are objected to.
- 8) ☒ Claim(s) 1-69 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20031205.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-60, drawn to a method of preparing a flexographic printing plate comprising applying an edge masking layer to the printing plate, classified in class 101, subclass 401.1.
  - II. Claims 61-69, drawn to a method of preparing a flexographic printing plate comprising providing a spray head and spraying edge masking material onto the printing plate, classified in class 101, subclass 401.1.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the edge masking layer can be applied through methods other than spraying. The subcombination has separate utility such as in a method which does not include patterning the surface .

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Gavin Manning on May 9, 2005 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-60. Affirmation of this election must be made by applicant in replying to this Office action. Claims 61-69 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "74" and "74A" have been used to designate both a general spray pattern in Figs. 2-A and 2-C and a particular type of spray pattern in Figs. 5-A and 5-C.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 58, see Fig. 2-A; 118A, see Fig. 3; 44, 81, See Fig. 6; 70', see Fig. 5-D

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 188A, see page 24, line 30; 125, see page 25, lines 25, 27, 30; 137, see page 27, line 7.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet

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submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 7-10, 13-18, 30-31, 33-36, 39-40, 43-46, 48-51 and 54-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,180,325 to Gelbart in view of U.S. Patent No. 6,326,125 to Alince et al.

With respect to claim 1, Gelbart teaches a method for preparing a flexographic printing plate, the method comprising: mounting a printing plate, 18, comprising a photosensitive imageable layer, 18B, on a cylindrical drum, 12; see column 3, lines 62-66; and, while the printing plate is on the drum: applying a surface mask layer, 40, to the printing plate, the surface mask layer masking a surface of the photosensitive imageable layer; see column 4, lines 10-16, and, patterning the surface mask layer. See column 4, lines 17-20.

Gelbart does not teach applying an edge masking layer to at least one edge of the printing plate, the edge masking layer masking at least a portion of at least one edge of the photosensitive imageable layer; wherein applying an edge masking layer is performed in response to at least one of: image data; format data; data relating to one or more dimensions of the printing plate; data relating to one or more edge locations of the printing plate; data relating to one or more dimensions of the photosensitive imageable layer; and data relating to one or more edge locations of the photosensitive imageable layer.

Alince et al. teaches a method for preparing a printing plate including applying an edge masking layer to the edges of a printing plate, masking a portion of a photosensitive imageable layer. See column 2, lines 12-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Gelbart to use the edge-masking technique of Alince et al. in order to prevent the occurrence of unwanted ridges at the edges of the printing plate. Although Alince et al. does not explicitly teach that the application is performed in response to a particular type of data, this is considered to be an inherent part of the process, as the application could not be carried out unless data concerning the location of the edges of the printing plate was known.

With respect to claim 30, Gelbart teaches a method for preparing a flexographic printing plate, the method comprising: mounting a printing plate, 18, comprising a photopolymer layer, 18B, on a cylindrical drum, 12; see column 3, lines 62-66; and,

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while the printing plate is on the drum, imagewise applying a patterned surface mask layer, 40, to a printing area of the printing plate. See column 4, lines 10-16.

Gelbart does not teach applying an edge masking layer to the printing plate, the edge masking layer masking one or more edges of the photopolymer layer or that the application is in response to data provided by a controller.

Alince et al. teaches a method for preparing a printing plate including applying an edge masking layer to the edges of a printing plate, the edge masking layer masking one or more edges of the photopolymer layer. See column 2, lines 12-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Gelbart to use the edge-masking technique of Alince et al. in order to prevent the occurrence of unwanted ridges at the edges of the printing plate. Although Alince et al. does not explicitly teach that the application is performed in response data provided by a controller, this is considered to be an inherent part of the process, as the application could not be carried out unless data concerning the location of the edges of the printing plate was known.

With respect to claim 44, Gelbart teaches a method for preparing a flexographic printing plate, the method comprising: mounting a printing plate, 18, on a cylindrical drum, 12, see column 3, lines 62-66, the printing plate comprising an integral surface mask layer and a photopolymer layer, 18B; and, while the printing plate is on the drum, patterning the integral surface mask layer. See column 4, lines 10-20.

Gelbart does not teach applying an edge masking layer to the printing plate, the edge masking layer masking at least one edge of the photopolymer layer or that the application is in response to data provided by a controller.

Alince et al. teaches a method for preparing a printing plate including applying an edge masking layer to the edges of a printing plate, the edge masking layer masking one or more edges of the photopolymer layer. See column 2, lines 12-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Gelbart to use the edge-masking technique of Alince et al. in order to prevent the occurrence of unwanted ridges at the edges of the printing plate. Although Alince et al. does not explicitly teach that the application is performed in response data provided by a controller, this is considered to be an inherent part of the process, as the application could not be carried out unless data concerning the location of the edges of the printing plate was known.

With respect to claims 2, 13 and 29, although Gelbart and Alince et al. do not explicitly teach that the surface mask layer and the edge masking layer are formed from a material having the same composition and that imagewise applying the patterned surface mask layer to the printing area of the printing plate and applying the edge masking layer to the printing plate are performed in a single operation, it would have been obvious to one having ordinary skill in the art at the time of the invention to use the same material for both layers, as both materials are essentially required to perform the same function, and to apply the layers in a single operation in order minimize the time required to prepare the printing plate.



With respect to claim 3, Gelbart does not teach irradiating the edge masking layer to form an edge mask area.

Alince et al. teaches irradiating the edge masking layer to form an edge masking layer. See column 4, lines 7-13.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Gelbart to irradiate the edge masking layer, as taught by Alince et al. in order to be able to remove the edge of the plate smoothly.

With respect to claims 4 and 45, Gelbart teaches that patterning the surface mask layer comprises imagewise irradiating the surface mask layer by exposing the integral surface mask layer to an imagewise distribution of radiation. See column 4, lines 35-46.

With respect to claims 5, 31 and 46, Gelbart teaches the printing plate comprises a continuous photopolymer sleeve. See column 3, lines 63-66.

With respect to claims 7-10, 33-36 and 48-51, Gelbart teaches exposing at least a portion of the photosensitive imageable layer to actinic radiation either while the printing plate is on the drum, see column 5, lines 6-10, or after removing the printing plate from the drum, see column 8, lines 15-23, and, after exposing at least a portion of the photopolymer layer to actinic radiation, removing portions of the photosensitive imageable layer to form a relief image. See column 5, lines 16-28.

With respect to claims 14-15 and 54-55, Gelbart teaches a masking material which comprises a negative working material which contains carbon. See column 4, lines 10-16.

With respect to claims 16 and 56, Gelbart teaches the edge masking layer comprises a positive working material wherein the method comprises rendering the edge masking layer opaque to actinic radiation by exposing the edge masking layer to radiation. See column 4, lines 10-16.

With respect to claims 17 and 57, although Gelbart and Alince et al. do not explicitly teach that the surface mask layer comprises a positive working material and the edge masking layer comprises a negative working material, it would have been obvious to one having ordinary skill in the art to provide the surface mask layer as a positive working material and the edge masking layer as a negative working material in order to produce a more precise printing plate.

With respect to claims 18, 40 and 58, although Gelbart and Alince et al. do not explicitly teach determining, based on format data associated with the printing plate, at least one of: the data relating to one or more edge locations of the photosensitive imageable layer; the data relating to one or more dimensions of the photosensitive imageable layer; the data relating to one or more edge locations of the printing plate; and the data relating to one or more dimensions of the printing plate, this is considered to be an inherent part of the process, as the application could not be carried out unless data concerning the location of the edges of the printing plate was known.

With respect to claim 43, Gelbart does not teach that applying the edge masking layer to the printing plate comprises ejecting liquid from one or more inkjet nozzles.

Alince et al. teaches applying the edge masking layer to the printing plate comprises ejecting liquid from one or more inkjet nozzles. See column 3, lines 30-33.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the method of Gelbart to use the spraying technique of Alinec et al. in order to more effectively apply the edge masking layer.

7. Claims 6, 32 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart in view of Alinec et al. as applied to claims 1-5, 7-10, 13-18, 30-31, 33-36, 39-40, 43-46, 48-51 and 54-58 above, and further in view of U.S. Patent No. 6,312,871 to Cusdin et al.

Gelbart and Alinec et al. teach all that is claimed, as in the above rejection of claims 1-5, 7-10, 13-18, 30-31, 33-36, 39-40, 43-46, 48-51 and 54-58, except that the printing plate comprises one or more plate sections applied to a tubular sleeve, each plate section comprising a photosensitive imageable layer.

Cusdin et al. teaches a printing plate, 11, which comprises one or more plate sections, 20, applied to a carrier sheet, 10, each plate section comprising a photosensitive imageable layer, see column 4, lines 5-11, and that the carrier sheet is mounted on a drum. See column 8, lines 27-29.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the tubular sleeve of Gelbart to have the plate sections of Cusdin et al. in order to have a more flexible construction for the imageable layer.

8. Claims 19-20, 41-42 and 59-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart in view of Alinec et al. as applied to claims 1-5, 7-10, 13-18,

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30-31, 33-36, 39-40, 43-46, 48-51 and 54-58 above, and further in view of U.S. Patent No. 6,318,262 to Wolber et al.

Gelbart and Alince et al. teach all that is claimed, as in the above rejection of claims 1-5, 7-10, 13-18, 30-31, 33-36, 39-40, 43-46, 48-51 and 54-58, except determining, using an edge detection sensor, which comprises at least one of at least one of: an optical sensor; an imaging sensor; a capacitive probe; and a physical contact-based edge detector; at least one of: the data relating to one or more edge locations of the photosensitive imageable layer; the data relating to one or more dimensions of the photosensitive imageable layer; the data relating to one or more edge locations of the printing plate; and the data relating to one or more dimensions of the printing plate.

Wolber et al. teaches a method of preparing a printing plate in an apparatus including an edge detection sensor which comprises at least one of at least one of: an optical sensor; an imaging sensor; a capacitive probe; and a physical contact-based edge detector; comprising determining at least one of: the data relating to one or more edge locations of the photosensitive imageable layer; the data relating to one or more dimensions of the photosensitive imageable layer; the data relating to one or more edge locations of the printing plate; and the data relating to one or more dimensions of the printing plate. See column 4, lines 30-36 and column 6, line 67 - column 7, line 6.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Gelbart to use the edge detection sensor

of Wolber et al. to determine the data relating to the location of the edges of the printing plates in order to be able to apply the edge masking layer more accurately.

9. Claims 21-24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart in view of Cusdin et al. and Alince et al.

With respect to claims 21-24, Gelbart teaches a method for preparing a flexographic printing plate, the method comprising mounting a tubular sleeve, 18, having a photoimageable surface on a cylindrical drum, 12, see column 3, lines 62-66, and, while the sleeve is on the drum, applying a surface masking layer, 40, to the sleeve. See column 4, lines 10-16.

Gelbart does not teach mounting one or more plate sections to a tubular sleeve, each plate section comprising a photopolymer layer, or after mounting, and in response to data provided by a controller, applying an edge masking layer to the one or more plate sections, the edge masking layer masking one or more edges of the photopolymer layers associated with the one or more plate sections.

Cusdin et al. teaches a printing plate, 11, which comprises one or more plate sections, 20, applied to a carrier sheet, 10, each plate section comprising a photosensitive imageable layer, see column 4, lines 5-11, and that the carrier sheet is mounted on a drum. See column 8, lines 27-29.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the tubular sleeve of Gelbart to have the plate sections of Cusdin et al. in order to have a more flexible construction for the imageable layer.

Alince et al. teaches a method for preparing a printing plate including applying an edge masking layer to the edges of a printing plate, the edge masking layer masking one or more edges of the photopolymer layer. See column 2, lines 12-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the method of Gelbart to use the edge-masking technique of Alince et al. in order to prevent the occurrence of unwanted ridges at the edges of the printing plate. Although Alince et al. does not explicitly teach that the application is performed in response data provided by a controller, this is considered to be an inherent part of the process, as the application could not be carried out unless data concerning the location of the edges of the printing plate was known.

With respect to claim 27, although Gelbart and Alince et al. do not explicitly teach the data which comprises data related to locations of the one or more edges of the photopolymer layers and the method comprises determining the data related to locations of the one or more edges of the photopolymer layers on the basis of format data associated with the one or more plate sections, this is considered to be an inherent part of the process, as the application could not be carried out unless data concerning the location of the edges of the printing plate was known.

10. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelbart in view of Cusdin et al. and Alince et al. as applied to claims 21-24 and 27 above, and further in view of Wolber et al.

Gelbart and Alince et al. teach all that is claimed, as in the above rejection of claims 21-24 and 27, except determining locations of the one or more edges of the photopolymer layers using an edge detection sensor, which comprises at least one of: an optical sensor; an imaging sensor; a capacitive probe; and a physical contact-based edge detector.

Wolber et al. teaches a method of preparing a printing plate in an apparatus including an edge detection sensor which comprises at least one of at least one of: an optical sensor; an imaging sensor; a capacitive probe; and a physical contact-based edge detector; comprising determining locations of the one or more edges of the photopolymer layers. See column 4, lines 30-36 and column 6, line 67-column 7, line 6.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Gelbart to use the edge detection sensor of Wolber et al. to determine the data relating to the location of the edges of the printing plates in order to be able to apply the edge masking layer more accurately.

#### ***Allowable Subject Matter***

11. Claims 11-12, 25-26, 37-38 and 52-53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or render obvious a method for preparing a flexographic printing plate as claimed, particularly including that the at least one edge of

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the photosensitive imageable layer comprises a bevelled profile, the bevelled profile having a bevel angle of less than 90 degrees.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 3,904,492 to Rich et al. and U.S. Patent No. 6,161,479 to Murray each teach an invention having obvious similarities to the claimed subject matter.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-Th 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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ANDREW H. HIRSHFELD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800